REMARKS

I. Status of the Claims

Claims 1, 3, and 5-7 are pending in the application.

II. Claims 1, 3 and 5-7 Meet all Requirements of 35 U.S.C. § 112, First Paragraph

Claims 1, 3 and 5-7 have been rejected under 35 U.S.C. § 112, first paragraph, for failing to comply with the written description requirement as including new matter not supported by the original disclosure. The Examiner alleged that the specification and claims as originally filed do not provide support for the invention as in claim 1 as presently amended. In particular, the Examiner argued that the recitation of part (a) of claim 1--providing a recombinant cell expressing an MHC class I protein-fluorescent protein fusion molecule or a radiolabeled MHC class I protein on a surface of the recombinant cell--was not present in the original claims and is not supported by the specification. Applicants traverse the rejection.

The method of pending claims 1, 3, 5, 6, and 7 finds support in the claims as originally filed and in the specification as filed. The table below details the support for the pending claims in the specification and claims as filed. Support for claim 1, part (a), is found in original claim 2 which was cancelled in an amendment filed June 28, 2001. The limitation of claim 2 was imported into claim 1 in an amendment filed November 14, 2003. Pending claim 1 provides a method for the detection of antigen specific T cells and finds support in the specification, for example, see page 1, lines 15 to 22. Original claim 2 supports the method comprising, in part, (a) providing a recombinant cell expressing an MHC class I protein-fluorescent protein fusion molecule or a radiolabeled MHC class I protein on a surface of the recombinant cell. Original claim 1 supports the method comprising, in part, (b) contacting the MHC class I protein-fluorescent protein fusion molecule or the radiolabeled MHC class I protein, bound to a specific antigen with a population of T cells. Original claim 1 supports the method comprising, in part, (c) incubating the fusion molecule or the radiolabeled MHC class I protein, bound to the specific antigen together with the population of T cells for a period of time sufficient for the T cells to internalize the fusion molecule or the radiolabeled MHC class I protein from the T cell surface. Original claim 1 supports the

method comprising, in part, (d) identifying the T cells that have internalized the fusion molecule or the radiolabeled MHC class I protein.

The method of pending claims 3, 5, 6, and 7 finds support in the claims as originally filed and in the specification as filed. See the table below. Original claim 3 supports the method of pending claim 3 comprising, in part, wherein said fluorescent protein is green fluorescent protein. Original claim 5 supports the method of pending claim 5 comprising, in part, wherein the identifying of the T cells that have acquired the MHC class I protein-fluorescent protein fusion molecule is done by detecting fluorescent emission of the fluorescent protein fusion molecule. Original claim 6 supports the method of pending claim 6 comprising, in part, wherein the identifying of the T cells that have internalized the MHC class I protein-fluorescent protein fusion molecule is done by detecting fluorescent emission of the fluorescent protein fusion molecule in a fluorescence activated cell sorter. Original claim 4 supports the method of pending claim 7 comprising, in part, wherein the recombinant cell is a *Drosophila* cell.

Pending Claim	**Support in the specification and claims as filed**
Claim 1. A method for the detection of antigen specific T cells, comprising:	"The internalization of the MHC class I/antigen complexes by antigen specific T-cells has been utilized in the present invention to provide a method for the enrichment of antigen-specific T-cells from a heterogeneous population of T cells. ... In addition, the method of the present invention provides a means to detect the presence of, and to quantify, T cells specific for a particular antigen present in a mixed population of T cells specific for a multitude of antigens." ***See specification, page 1, lines 15 to 22.***
a. providing a recombinant cell expressing an MHC class I protein-fluorescent protein fusion molecule or a radiolabeled MHC class I protein on a surface of the recombinant cell;	"The method of claim 1 [A method for the purification of antigen specific T cells], wherein said source of MHC class I protein associated with a specific antigen containing a detectable marker is a recombinant cell expressing MHC class I protein fused with a fluorescent protein." ***See claim 2, as originally filed.*** "Examples of detectable markers that can be

	used in the method of the present invention include, but are not limited to, radioisotopes incorporated into or attached to the MHC class I protein, or any colorimetric or fluorescent compound or protein that can be linked to the MHC class I protein." ***See specification, page 5, lines 1 to 5.***
b. contacting the MHC class I protein-fluorescent protein fusion molecule or the radiolabeled MHC class I protein, bound to a specific antigen with a population of T cells;	"A method for the purification of antigen specific T cells, comprising ...(a) contacting a source of MHC class I protein associated with a specific antigen with a population of T cells, wherein said MHC class I protein contains a detectable marker;..." ***See claim 1, as originally filed.***
c. incubating the fusion molecule or the radiolabeled MHC class I protein, bound to the specific antigen together with the population of T cells for a period of time sufficient for the T cells to internalize the fusion molecule or the radiolabeled MHC class I protein from the T cell surface; and	"...(b) incubating the MHC class I protein associated with the specific antigen together with the population of T cells for a period of time sufficient for the T cells to acquire the MHC class I protein associated with the specific antigen from the source; ..." ***See claim 1, as originally filed.***
d. identifying the T cells that have internalized the fusion molecule or the radiolabeled MHC class I protein.	"...(c) identifying the T cells that have acquired the detectable marker." ***See claim 1, as originally filed.***
Claim 3. The method of claim 1, wherein said fluorescent protein is green fluorescent protein.	"The method of claim 2, wherein said fluorescent protein is green fluorescent protein." ***See claim 3, as originally filed.***
Claim 5. The method of claim 1, wherein the identifying of the T cells that have acquired the MHC class I protein-fluorescent protein fusion molecule is done by detecting fluorescent emission of the fluorescent protein fusion molecule.	"The method of claim 1, wherein the identifying of the T cells that have acquired the detectable marker is done by detecting fluorescence emission of the detectable marker." ***See claim 5, as originally filed.***
Claim 6. The method of claim 1, wherein the identifying of the T cells that have internalized the MHC class I protein-fluorescent protein fusion molecule is done by detecting fluorescent emission of the fluorescent protein fusion molecule in a fluorescence activated cell sorter.	"The method of claim 1, wherein the identifying of the T cells that have acquired the detectable marker is done by detecting fluorescence emission of the detectable marker in a fluorescence activated cell sorter." ***See claim 6, as originally filed.***
Claim 7. The method of claim 1, wherein the recombinant cell is a *Drosophila* cell.	"The method of claim 2, wherein said recombinant cell is a Drosophila cell." ***See claim 4, as originally filed.***

The method of claims 1, 3, 5, 6, and 7 also finds support in the specification as filed. Claim 1 provides a method for the detection of antigen specific T cells comprising, in part, providing a recombinant cell expressing an MHC class I protein-fluorescent protein fusion molecule or a radiolabeled MHC class I protein on a surface of the recombinant cell. The specification provides support for a method for the detection of antigen specific T cells using a recombinant cell, *e.g.*, a recombinant *Drosophila* cell (see the specification, for example, page 4, lines 12-23) or a recombinant mammalian cell (see the specification, for example, page 4, lines 23-27). The method for detection of antigen specific T cells can be used to investigate MHC/peptide complexes on APCs following engagement of T cells. See the specification, for example, page 1, lines 20-22 and page 4, lines 12-14. The specification discloses multiple recombinant cell types that express a detectable MHC class I fusion protein, where the MHC class I fusion protein may be detectable by a variety of means, *e.g.*, fluorescence or radiolabel, wherein the fluorescent marker is a green fluorescent protein, and wherein detecting fluorescent emission of the detectable marker occurs in a fluorescence activated cell sorter. See the specification, for example, original claims 2, 3, 5 and 6, and page 4, line 31 to page 5, line 7.

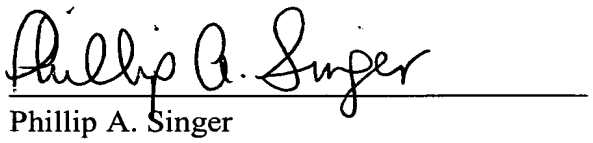
Thus, the original disclosure provides adequate support for the invention as now claimed. Accordingly, Applicants respectfully request that the rejection of claims 1, 3, and 5-7 under 35 U.S.C. § 112, first paragraph, be withdrawn.

III. Conclusion

In view of the foregoing, the application is now in condition for allowance. The prompt issuance of a formal Notice of Allowance is therefore requested.

If the Examiner believes a telephone conference would expedite allowance of this application, please telephone the undersigned at 206-332-1380.

Date: December 1, 2005



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